## Abstract

## Fuel Purging of Cascaded Fuel Cell Stack

A fuel cell stack has a cascaded fuel flow field in which groups (10-12) of fuel cells (13, 13a) are arranged in flow-series, there being a fuel purge inlet valve (33) to provide fuel flow directly to two of the groups (11-12) downstream in the series, and a fuel purge outlet valve (36) to vent fuel flow directly from the first and second groups (10, 11) of fuel cells (13), whereby to avoid large pressure drop in the lowest group (12) of the series, to thereby facilitate quick purging of the fuel flow field. In other embodiments, rotary gates (40, 41) or sliding gates (56, 57) within manifolds cause fuel to flow into and out of all three groups directly during a purge.

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